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CSS TRANSFORMATION: DOES THE EMPEROR HAVE CLOTHES?

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The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Army.

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The United States military has been increasingly tasked to project its forces faster and leaner into combat areas. The Army has taken a lead into transformation. Part of this effort is to downsize its logistics tail in order to meet deployment timelines and to reduce costs. These force structure cuts have been top driven and have led to new logistic strategies such as Distribution Based Logistics (DBL) and Spartan Support. The leveraging of technology, such as information dominance, has led to these misguided new strategies. The current direction of the Army transformation efforts presents numerous operational risks and venues for an enemy to pursue to exploit.

Operating in a non-contiguous environment, one of the centers of gravity for a Joint Task Force could be its logistic tail that is operating using a DBL or Spartan Support concept. To preclude a disaster, US leadership needs to leverage technology to improve the efficiency of logistic operations and thus, naturally reduce both the logistics tail and associated costs. Specifically, demand reductions, better deployment equipment and forward positioning must be used to achieve the goals of the Army's Transformation effort. Additionally, the leadership must conduct a trade-off analysis between current transformation efforts and the risks that it imparts to our military forces. A bottom driven versus top driven approach for logistic force structure cuts is a better method to determine appropriate and logical solutions to the Army's Transformation goals.

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The Joint Task Force (JTF) Commander knew that operations were going to hell when he got the report that the Global Positioning System had been jammed and the supply convoys were lost. As he stared over the map, he could not help regretting the Spartan support doctrine. With ports only having two lanes cleared of mines and the airfield being rebuilt for a MOG of two, the situation was grim. Scattered intelligence reports indicated that the Chinese were massing near the passes into India and Afghanistan. Unit status reports stated that our forces were reporting critical in class III (fuel), V (ammunition) and VIII (medical supplies). The latest J6 update reported the new virus has wiped out the databases of most our information systems. The J4 reports that the ground force won't be re-supplied for days since weather inhibits air re-supply and the ports and airfields can't support the requirement. Host Nation is not available and small guerilla units have interdicted the main supply routes. Well, hell of a non-contiguous environment to operate in, he thought, as his mind wandered to Thermopolis and the Spartans.

The above scenario paints a potential picture of a transformation effort that could jeopardize the logistician's ability to sustain the force. This effort leads to the question: is transformation worth the risk? Does the drive to leverage technology to obtain transformational efficiencies (lower costs, increased mobility and reduced logistic footprint) expose the Army or a JTF to vulnerabilities that an adversary could exploit? A potential center of gravity of the Army is its logistics lifeline, do the demanded cuts open a venue to exploit? These potential vulnerabilities can expose the Army to unnecessary risk. The wrong interpretation of what leveraging technology can achieve can lead to a misguided transformation strategy that can be exploited by a smart enemy. The trade off analysis between transformation and risk must be made before the implementation pendulum swings too far (making it too late to make up for the shortfalls) thus begging the question, "does the Emperor have clothes?"

The joint logistics world is transforming with the Army taking the lead in the process due to its Title 10 executive sustainment responsibilities (thus, the focus of this paper on Army CSS transformation). This paper

will focus on the potential risks of focused logistics (in the context of transformation drivers) that might be exploited by an enemy. I will then examine why focused logistics is not transformational. Rather it is an evolutionary effort, the basis for which is founded on time honored logistics principles. Focused logistics ultimately will enhance the combat fighter's efforts and decrease operational risk. I will then focus on the counter argument on why the Army has to transform and downsize its logistics system. Lastly, I will make recommendations to improve focused logistics and transformational efforts to better support the Joint Task Force (JTF) commander.

The current Army strategy is to significantly downsize the Army's logistics system. The transformation process entails "enhancing strategic responsiveness; reducing the logistics footprint in the combat zone; and introducing a fundamental change in doctrine, procedures and force structure."[1] Two transformational concepts that are designed to support the Army efforts are Distribution Based Logistics (DBL) and Spartan support. The three other key concepts (demand reduction, improved deployment capabilities and forward positioning) are not new ideas to military logisticians. Without thorough analyses of the risks, the first two transformational concepts are potential problems and expose the JTF to unnecessary risks.

Distribution Based Logistics entails using transportation assets to deliver materiel from outside the theater into the combat zone and ultimate customer unit. These supplies could be from an intermediate staging base or from the United States. By leveraging an extremely responsive supply system, DBL allows the JTF to maintain a minimum level of inventory in the combat zone. DBL “exchanges warehousing capacity for frequent, consistent flows.”[2] The benefits are that the U.S. can minimize logistics structure

forward and thus reduce the logistics footprint. Another benefit is that a large logistics tail will not have to be strategically deployed into the combat zone thus freeing up critical strategic airlift for additional combat systems and quicker deployments. The goal of the U.S. Army is to deploy an interim brigade combat team anywhere in the world within 96 hours.

On the other hand, Spartan support entails removing organic CSS capabilities in maneuver units so that only absolutely essential capabilities remain thus eliminating those items deemed not necessary for the immediate fight.[3] Only the most important logistics required to sustain the immediate fight will be pre-positioned. With this austere environment, follow on support will be critical for success. The benefits of the Spartan support concept is that it reduces the logistics tail in theater and quickly deploys the force.

Both of these transformation concepts impose risk to the JTF commander’s conduct of operations. One of the means an enemy can use to get to our critical logistics is through asymmetric attacks. This strategy is generally very cost effective for a weaker opponent that cannot directly confront a stronger opponent. History is riddled with examples of enemy forces using asymmetric attacks to indirectly attack an opponent's center of gravity. One of the Joint Task Force's centers of gravity is its logistics. An enemy could potentially defeat a JTF by denying our forces the fuel, ammunition and supplies necessary to operate. Asymmetric methods are a means to get at this center of gravity. By attacking systems that the logistic units heavily rely on, an enemy could strangle a JTF’s lifelines. By affecting a JTF’s operational and logistical situational awareness, this indirect method imposes considerable risks to the JTF Commander.

Asymmetric attacks take on many different forms. An asymmetric thinking enemy can jeopardize forces who are depending on distribution based logistics or Spartan support to operate. Some of the potential interdiction methods involve information system denial, special-forces interdiction, entry denial operations and terror operations targeted against the homeland industrial base. By focusing on relatively low cost but high pay off operations, the enemy can indirectly defeat a JTF operation.

As stated above, attacking a nation's information system is one method for enemies to use against the U.S. This method is not new. Nations and corporations attack each other's systems through the Internet. In the past, Chinese military authors have stated that a method to attack the U.S. is through disrupting our computer systems.

Our combat service support (CSS) transformation relies heavily on information systems to leverage our ability to operate and decrease logistic structure. Information systems are key to the success of DBL concept. These systems allow for increased efficiencies in requisitioning, tracking and storing critical classes of supply. The total asset visibility (TAV) and global combat support systems are other examples of information systems that logistics units heavily depend on. With real time logistics information systems, the JTF is able to decrease manpower requirements in areas such as warehousing (better location of inventory leads to less warehouse personnel) as well as a reduction in the logistics footprint in theater (i.e. can order items through the net and require less stockpile forward). Additionally, with improved situational awareness the U.S. enjoys an advantage over adversaries by being able to make quicker and better informed decisions.

The risk associated with relying on an information dominance concept is that an enemy with a keyboard and phone line could prevent the passage of critical logistics information. This jamming could affect the sustainment ability of units that are providing critical support. A computer virus or a jamming operation could easily destroy a database or prevent communication. Without total asset visibility, the leverage effect is nullified and now safety stocks become critical, as asset visibility is lost. The Global Positioning System (GPS) signal is a low signal strength beam that is easily jammed. DBL depends on GPS to locate customer units for delivering and tracking of supplies. With better situational awareness, DBL eliminates the need for safety stocks that have been main stays in previous conflicts. However, a primary assumption of DBL is that the U.S. will have unfettered access to their information systems and our system vulnerabilities will be mitigated. It is a dangerous to assume an enemy will allow the U.S. to have this unfettered access. Security system's claims to be impenetrable have been proved wrong, time and time again. The risk is that without this dominance, the envisioned JTF logistic system using both DBL and Spartan support will be crippled. Current logistic studies state that the JTF will have to have back up plans but there is no funding or details.

Furthermore, a Jane's Defense Magazine article introduces an interesting strategy that an opponent might use against a military that relies heavily on information systems to operate. A weaker opponent might use the Swiss strategy of dissuasion rather then risk a head on war with the U.S. that would lead to defeat[4]. This dissuasion strategy entails taking away the U.S. advantage of information dominance by several means (destroy key communication nodes, satellites, induce computer viruses or communicate the ability to negate our systems etc.) in order to increase

the risk and cost to the U.S. to even begin a military operation. If the U.S. transformation strategy depends on information dominance to achieve the logistic efficiencies then this dissuasion strategy could be very successful in deterring the ability of the U.S. to use force as an option. Thus, transformation potentially opens an opportunity to a far-flung regional competitor to develop a cheap strategy to paralyze U.S force options.

In addition, Spartan support is also vulnerable to both Special Operations Forces (SOF) and hostile entry denial operations. Couple these threats with dependence on DBL and DBL's inherent risks, Spartan becomes even riskier. These two transformational concepts (DBL and Spartan support) are heavily dependent on reliable and responsive distribution and transportation systems - more so than today's force which has an in-depth and multi-layered logistic infrastructure. SOF could be used to interdict convoys, destroy key communication nodes and target austere logistic sites that have been whittled down to only the most absolute necessary items (no redundancy).

Additionally, logisticians have had a key force protection role in the rear area. Logistics soldiers have to be both technically and tactically competent which means that when they are not sustaining then they are defending. Under this Spartan support, the deep logistic personnel cuts (CSS to Task Organization- future: 1 to 6 compared with current: 1 -3[5]) envisioned by the Army concept will now leave much of the rear area exposed to these SOF operations. Current and proposed transportation vehicles are not heavily armed and are vulnerable. Thus, fewer logistics personnel will entail more combat forces dedicated to protect key supply routes and key organic logistic sites. An additional consideration is the consolidation of support soldiers to the support unit (no longer organic to the Infantry

Battalion), these soldiers will not have trained or operated with the combat unit. This lack of cohesiveness presents a whole different set of problems. Thus, if SOF can isolate the JTF force by disrupting logistics, then the JTF under Spartan conditions will suffer.

Another key risk with CSS transformation is the increased reliance on the industrial base and the homeland to provide the needed repair parts, systems and supplies for the military force. A strength of the United States since World War I has been its logistics. Future enemies might now be able to attack this strength and turn it into vulnerability. In the past, the United States has been able to overwhelm adversaries through its industrial prowess and its ability to project forces throughout the world and sustain them. In terms of morale, it is hard to measure the effect of outstanding logistics except in terms of winning and the "can do" attitude of U.S. military forces. Poor logistics jeopardizes both morale and operations.

In each conflict, the U.S. has not seriously had an opponent that could effect its logistics i.e. no opponent has been able to reach that center of gravity. However, the increased reliance on information systems presents opportunities for enemies to exploit. In the next twenty-five years, nations like China may become industrial super powers that could challenge the industrial strength advantage that the U.S. has enjoyed in overwhelming opponents for the last 100 years.

As witnessed during 9-11, an attack on the homeland can significantly disrupt operations. Imagine a systematic penetration of key electrical grids, financial markets and perhaps key transportation nodes and the disrupting effects on both public opinion and time. An overriding driver in the transformation effort is the ability to project a force anywhere in the world in a timely manner. An enemy may realize that these disruptions

might not have a permanent effect. Rather their primary objective is to disrupt the timing of U.S. forces and thus interdict our ability to support our forces. DBL and Spartan support demand that the logistic community be able to throughput logistics from the homeland. If that homeland operation is disrupted and that throughput is slowed, it might be enough for an enemy to defeat a U.S. entry force. This victory could be the catalyst to incite those opponents of military action within the U.S. to generate support to cease operations. Thus, if timing is crucial, an enemy can use the increased reliance on homeland support as a tool to disrupt operations at key moments and defeat a militarily stronger force. This scenario clearly demonstrates the risk in over relying on the ability to sustain operations through DBL or Spartan concepts.

Having examined some of the means a weaker opponent might use such as asymmetric attacks and homeland disruptions and the increased risks that are apparent in CSS transformation, it is important to realize that the "transformation" that the Army is citing is more of an evolutionary process then a transformational one. Focused logistics needs to be refocused not transformed. The current technologies are not revolutionary concepts of support, in fact Spartan support might be thought of as de-evolutionary. Evolutionary processes will create better support because technology allows for better decision-making; that in turn leads to better risk management.

This distinction is important because the Army leadership believes it has to force the CSS community to change per the dictates of the Commanding General of the Combined Arms Support Command (LTG Solomon).[6] Forcing might be the correct terminology if force structure cuts are taken when the risks have not been evaluated. A RAND study stated that "personal reductions… were at least partially imposed on CSS functions prior to thorough analysis…in effect, caps were set that pushed the Army toward the CSS

goals."[7] The study further states, " It is imperative that the ideas developed with regard to how to provide capabilities not embedded in a unit are implemented."[8] The second statement clearly communicates that a high-risk adventure like this entails a back up - the trouble is that the force structure cuts eliminate a lot of the previous structure that could have provided those alternatives. These two statements demonstrate the inherent risks generated by forcing cuts without the clear communication of the operational risks to a JTF operation.

Thus, it is important for the senior logisticians to communicate to the Army leadership that forcing cuts without analysis and coming up with support concepts that put the force at risk is not transformational but deadly. It is important to communicate that technology is providing the CSS community with evolutionary means to provide support better and quicker. As stated earlier, demand reduction, improved deployment capabilities and forward positioning are not new logistic concepts but they are critical to supporting the force - more so then DBL or Spartan strategies. The strategies will naturally reduce the logistics tail and lead to quicker deployments.

Logisticians since the beginning of time have always wanted the right stuff, delivered at the right time to the right place. The current technology goes hand in hand with this time-honored creed. Logisticians always want to know what is on hand, how can I get there and is it the right amount? Current technology allows us to do a better job and thus increases efficiencies and saves time. If the U.S. eliminates a logistic devouring heavy force (Abrams tank etc.) and replaces it with a system that has fewer parts to maintain, better fuel consumption rates and overall less logistics appetite, then it follows that the logistician problem is

lessened. This demand reduction will naturally decrease inventory, personnel requirements and transportation burdens.

A truly CSS transformational technology would be a "StarTrek" transporter system that can beam objects to different locations (believe it or not - scientists are working on this technology) or a replicator to make repair parts and supplies on site, not a computer that can track supplies better. The computer replaces the stubby pencil and increases our speed to make decisions and communicate, which allows logisticians to be more efficient. But the information requirements for the logistician to do his job have not changed. Our sustainment characteristics of responsiveness, simplicity, economy, flexibility, attainability, sustainability, survivability and integration are still relevant.

Another reason cited for "forcing" transformation on to the CSS community is that logistics just cost too much. The logistic footprint and the force structure are too costly. However, is cost a good driver to force transformation in the CSS community? In both cases, it depends on what the costs are and what business practices the military is trying to adopt. Lowering costs, better business practices and replicating industry is the mantra heard from political and military leaders. However, industry is driven by a profit motive and in order to achieve that profit, industry tends to focus on cost as a driver. The military is in a unique business where the driver is to win the nation's war. Cost is not a driver but rather a factor. The cost of a military defeat might be greater then the cost to win. Sustaining a force should not be sorely viewed in cost terms but rather in effective terms. Thus, the consideration should be, “is the amount of logistics a combat multiplier enabling a force to win?”

Leveraging technology to reduce cost and logistic demands (a better combat vehicle) and improving total asset visibility (reducing waste) is an

evolutionary means to improve support - not transformational. Surely, cost is a component for consideration but it should not be the driver where doctrine is created to enable the cost cuts. Logisticians should be accountable to keep costs at a minimum to support the force. Improved technologies and demand reductions will create natural efficiencies and decreased costs. But the blood of a soldier cannot be put into dollar terms and thus the risk we put on success by cutting logistic force structure through force versus evolution should be carefully considered.

Another reason to refocus our focused logistic dogma is the attempt by leaders to demand the CSS community mimic industry practices. The question is, does current business practices translate well in transforming the military logistics system? Adopting better business practices that reduce cost in a peacetime garrison environment, but may not translate well in combat, is dangerous. An example is consolidating inventory and personnel to achieve efficiency. This consideration might be perilous in an ever changing combat zone requiring maximum flexibility.

Additionally, DBL is dangerously similar to "just in time" industry practice. This "just in time" concept is designed to decrease inventory at the factory by having the needed part or materiel delivered right on time at the plant where it is needed (the supplier holds the inventory). The concept is great in theory but in practice it has had some problems. If industry is not able to meet delivery times, or the materiel is not available, or industry is unable to meet surge demands, these distribution strategies fail. DBL assumes that required support will arrive "just in time" and thus, inventories in the combat zone can be reduced. This strategy is hard enough to achieve in a daily business cycle, now contrast successfully using this strategy in the chaotic combat zone of a JTF. The practice does not translate well and in the end might cost you more in

terms of lives and costs - something industry does not have to contend with.

Lastly, the Army’s transformation effort is also changing logistic doctrines. These changes are violating the logistic imperatives of responsiveness, simplicity, economy, flexibility, attainability, sustainability, survivability and integration. Technology should lead to evolutionary improvements rather than the abrupt "transformation" (changing) of logistics to meet the needs of the supported force. As stated earlier, the theory of leveraging technology and business practices has enabled senior Army leadership to demand a logistics force structure reduction, which has forced the acceptance of new doctrines.

These demands have caused the CSS community to adopt a change "from sustainment by mass to speed and precision" strategy.[9] The Interim Brigade Combat Team sustainment concept has no redundant maintenance, limited repair parts and is dependent on external resources for surge capabilities. Somewhere, redundancy has gotten a bad rap. Redundancy, in logistics terms, gives a force options, particularly in a combat environment. The leveraging of information systems technology has enabled the logistician to create smart redundancy (i.e. place safety stocks with the right stuff, at the right place, at the right time). Smart redundancy cuts costs and minimizes risks to the force by enabling the force to operate even if its supply lines are cut. DBL and Spartan strategies eliminates safety stocks (mass) and relies on distribution for supply. For the previously discussed reasons, this strategy creates a possibility that logisticians will not be able to respond, be flexible or survive using this higher risk and restricted strategy.

A counterargument to the risks of transformation is that the world is changing and a force must transform to be relevant. Technology and a

defunct cold war environment have driven the joint world to under-go a transformation in the way that the Army fights the next war. Technology strides have led decision makers to decide to leverage this technology to gain efficiencies. These gains have led to a movement to downsize the logistic manpower and equipment requirements. This downsizing is viewed as a good trend since decreasing the tail-to-teeth ratio yields perceived benefits of cost savings, increased strategic mobility (less to move) and the ability to add more teeth to the fight. These cost savings will be used to fund the Army's transformation effort.

Other reasons given for the urgent need to reform are based on challenges to project strategic power and reduce the logistics footprint in the area of operations. The ability to take six months to deploy and build up will not be realistic in the next major conflict. The new world order demands that the U.S. must be able to project power quickly and decisively. Logistics has the tendency to impede this movement and thus any friction to power projection must be reduced or eliminated. In addition, the risks associated with transformation do not outweigh the need for a newly defined projection Army; particularly in the light of keeping the Army relative in the inter-service battle for resources and funding.

New distribution capabilities coupled with a world environment where the U.S. is the only super power mandates that we transform from a cold war Army. In addition, the cold reality is that Army leaders are demanding that the CSS community make these force structure cuts in order to induce change. Thus, with these facts, the CSS community is going to have to adopt the best strategy available (which is what the CSS community is currently doing).

The above statement is based on reality and it has to be addressed by the CSS community. The real challenge by the logistic community is how do

you create the efficiencies demanded by the Army and still support the JTF commander? The logistic effort has to be based on time honored sustainment characteristics and on METT-T (mission, enemy, time, terrain and troops) principles. Flexibility is key to be able to respond to all type of environments - some of these environments will allow for a DBL or Spartan type strategy to work while others will not. The current transformation concept is based on a conventional army that enjoyed tremendous success on the battlefield. However, with a new world order where opponents will use planes as missiles, it is self evident that our weaker opponents will use asymmetric means to attack our vulnerabilities. Basing transformation on the theory that we will have information dominance, unrestricted distribution access and industrial capability, as we did in the cold war, might not be a good basis to develop a new transformational force projection Army. The mostly likely means an enemy will attack us is asymmetrically. The CSS community needs to continue to develop better systems to allow for a more efficient and less costly operation. However, we need to do more thinking in developing a logistical system that counters asymmetric threats as well as support a JTF in a non-contiguous environment. Smart mass (inventory) coupled with enabling units to be more self-sufficient makes more sense then no mass and a logistics system solely dependent on a vulnerable distribution network.

Another recommendation is that the Joint world and the Army need to play logistics in its war games. Too often in these exercises, logistics problems are wished away because it will interfere with the combat arms play/training. Unfortunately, as it often happens in these war games, 100% reconstitution after a simulated devastating battle will not happen in the real world. Without addressing the new threats presented by an enemy that reads our doctrine and understands our strategy of information dominance,

we will be vulnerable. We need to war game an asymmetric enemy that is able to disrupt our industrial base, affect our timing or deny us entry into critical logistic terminals. The Army is great with force on force war games but that environment might not be the future and it might not be a basis for a transformation effort.

In addition, cost as the driver for transformation needs to be de-emphasized. The current future fighting vehicle system will reduce the logistics demands considerably and will result in considerable savings. Some of these savings need to go into new logistics systems that are self-supporting in combat and provide smart mass or redundancy that allows for operations in a noncontiguous environment. New packaging methods and delivery systems need to continue to be built. The senior logisticians need to sell that idea that leveraging technology results in an evolution in sustainment that will in turn makes us more efficient and cost effective. The CSS community should not have to be "forced" to transform rather it should be able to partner up with the Army and create a sustainment concept that makes sense and mitigates the risks that an asymmetric enemy presents.

Along with this effort, the CSS community needs to continue to stress education and training for its personnel. Recent cuts by the Army have decreased Advanced Civilian schooling opportunities for CSS officers; in the near term, this saves money, but in the long term, it may cost more in an ever increasing, technologically-demanding environment. A suggestion is to develop a Master Logistician training program in our TRADOC schools. This program would entail a core group of logisticians who would study history and are trained to overcome potential sustainment problems and develop innovative means and strategies to support our forces. These officers could become the building block for the out years programs.

Currently, no program exists to accomplish this function. For the most part, combat developments are seen as a retirement opportunity and this needs to change in light of the need for the Army to transform.

Thus, after careful examination, transformation through evolution is worth the risk. However, the U.S. must mitigate the risks presented to the enemy while we are leveraging this technology. A JTF will not last very long if its logistics are cut off and there are insufficient logistics on the ground to sustain. The current top down approach by the Army to force the logistics community to change might not be the appropriate one. As stated earlier, time-treasured logistic imperatives have not changed. The logistician strives to support the combat operation force with the right amount, at the right time and at the right place. It is not in our interests to carry too much (we have to lug it around), or spend too much (we are accountable) or have the wrong parts to support the force. Smart sustainment redundancy coupled with a disciplined information system management (back up tapes etc.) helps to mitigate an enemy interdicting supply lines and penetrating information systems.

With that said, it is clear that the CSS community has to change. The Emperor has clothes but if the CSS community does not communicate the right strategy that leveraging technology enables us to provide, then the Emperor might just be in skivvies (and that isn't a way to fight). Technologies provide forward thinking logisticians a means to develop the strategies that will better support the force. Reduced demands and other means will allow the U.S. to truly be a force projection Army for the JTF commander. The CSS community needs to identify and communicate the threats and risks imposed on it by a top-driven reduction in force structure that contains little trade-off analysis. Transformational concept studies are rife with contingent comments that allude to needed risk assessments and back up

plans. This concept is a non-starter because winning the Nation's war is our mission and we have to develop a strategy that enables us to do that and not wish away risks. We want the enemy to adopt and live a Spartan support concept because we can cut them off and kill them quickly. The best Army in the world shouldn't be devising a concept that makes our soldiers face those risks. Demand-reduction, improved deployment capabilities and forward positioning along with better distribution systems will allow the CSS community to achieve the transformational goals that better support the JTF commander. Logistics has always been a strength of the U.S. - it should not become a vulnerability.

NOTES

[1] Mark Hewish, "Logistics War," International Defense Review, (October 01, 2001): 2.

[2] Eric Peltz, John Halliday, Steven Hartman, "Combat Service Support Transformation: Emerging Strategies for Making the Power Projection Army a Reality," Unpublished RAND Study AB-571-1-A, (February 2002): XV

[3] ibid., XV.

[4] George J. Stein, "The changing Nature of Warfare," US Information Warfare, (01 November 1996): 6, Available online: Jane's Online.

[5] Proposed Objective Force Sustainment Briefing to Gen Abrams, "RML impact on deploying and sustaining the Objective Force," (Combined Arms Support Command, Ft. Lee, VA., 14 August 2001):16.

[6] Ibid., 10.

[7] Peltz, Halliday and Hartman, 37.

[8] Ibid.

[9] Proposed Objective Force Sustainment Briefing to Gen Abrams, 8.

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